

ABSTRACT

Aerial dispersion systems that may be employed to allow rapid and temporary conversion of aircraft for aerial dispersion purposes, such as aerial fire-fighting. The aerial dispersion systems may be implemented using modular components that may be configured for compatibility with conventional cargo loading and unloading systems of modern aircraft, including side-loading cargo systems of wide body passenger and cargo aircraft having high lift capacities. The aerial dispersion systems may be rapidly installed in a large fleet of high capacity aircraft in response to a wildfire or other rapidly-developing emergency such as an oil spill, chemical or biological contamination incident, building or refinery fire, *etc.* After use, the aircraft of the fleet may be rapidly de-modified and returned to original condition. The aerial dispersion systems may be operated with a fleet of aircraft in a coordinated manner, for example, as part of an aerial firefighting formation having multiple aircraft sharing information and/or common control.